



Agenda for **147th OCC Meeting**

Date: 20.07.2018
Eastern Regional Power Committee
14, Golf Club Road, Tollygunge
Kolkata: 700 033

Eastern Regional Power Committee

Agenda for 147th OCC Meeting to be held on 20th July, 2018 at ERPC, Kolkata

Item no. 1: Confirmation of minutes of 146th OCC meeting of ERPC held on 15.06.2018

The minutes of 146th OCC meeting were uploaded in ERPC website and circulated vide letter dated 03.07.2018 to all the constituents.

Members may confirm the minutes.

PART A : ER GRID PERFORMANCE

Item no. A1: ER Grid performance during June, 2018

The average consumption of Eastern Region for June- 2018 was 456.3 Mu. Eastern Region achieved maximum energy consumption of 488 Mu on 19th June - 2018. Total Export schedule of Eastern region for June - 2018 was 1716.1 Mu, whereas actual export was 1450.9Mu.

ERLDC may present the performance of Eastern Regional Grid covering the following:

- 1. Frequency profile**
- 2. Over drawl/under injection by ER Entities:** Over drawl figure of West Bengal and Odisha from 01-07-2018 to 07-07-2018 are shown below:

State	West Bengal		Odisha	
Date	Over Drawl (MU)	Max. Over Drawl (MW)	Over Drawl (MU)	Max. Over Drawl (MW)
01-07-2018	4.056579	543.9598	1.515301	454.6628
02-07-2018	1.405784		1.18451	732.7228
03-07-2018	4.207434	543.7326	1.580814	493.2611
04-07-2018	3.618164	434.8629	0.944288	387.0954
05-07-2018	2.459644	455.2968	2.681334	490.8415
06-07-2018	5.600231	592.7963	1.135233	420.9483
07-07-2018	4.977565	871.715	1.799373	383.0183

- 3. Performance of Hydro Power Stations during peak hours**
- 4. Performance of ISGS during RRAS**
- 5. Reactive Power performance of Generators**
- 6. Restricted Governor /Free Governor Mode Operation of generators in ER**
- 7. Less DC declaration by NTPC during evening peak hours:**

It has been observed that few ISGS stations for instance – FSTPP, TSTPP has persistently revised their DC during evening peak hours to a lower value than that of off peak hours for reasons like coal stock, quality, mill availability issues etc. This goes against the spirit of **Section 6.5.19 of IEGC 2010** which reads –

“While making or revising its declaration of capability, except in case of Run Off the River (with up to three hour pondage) hydro stations, the **ISGS shall ensure that the declared capability during peak hours is not less than that during other hours**. However, exception to this rule shall be allowed in case of tripping/re-synchronisation of units as a result of forced outage of units.”

Many times real time operators have denied such downward DC revision. To avoid such scenario, NTPC stations are advised to assess the parameters that influence DC (coal stock, quality, mill availability etc) well before, so as to ensure the declared capability during peak hours is not less than that during other hours.

NTPC (Farakka and Talcher) may please deliberate.

8. Low Frequency Oscillation (LFO) observed at Talcher and nearby nodes on 3rd and 4th July 2018.

Low frequency oscillation of 0.2 Hz was observed in Talcher and nearby nodes on 3rd July '18 between 21:30 -21:46 Hrs and 4th July '18 between 19:07-19:11 hrs. The oscillation was prominent in the Eastern region near Talcher based on the analysis of pan India synchrophasor data. Talcher bus voltage from PMU for both days are given below in fig 1 and 2 where oscillation can be observed. Oscillations were more prominent in magnitude near Talcher followed by other nearby station indicating some nearby local phenomenon or generator hunting at Talcher. Based on analysis of Eastern region SCADA data, it was found that there was a large variation in the MW and MVAR of Talcher Unit 3 on 3rd July 2018 and Talcher Unit 6 on 4th July '18 during the period of oscillation. This can be observed from figure 3 and 5. Further after the intimation of the above, NTPC Talcher have informed that their unit has hunted due to equipment malfunction during the period. This can be observed from the unit MW and MVAR plot from fig 4 and 6.

Issues of Concern for OCC :

1. **Non-Intimation by NTPC to ERLDC in Real time :** It has been decided in the 144th OCC (Item B.3) that any unit observing hunting in their units must immediately inform ERLDC/SLDC. However, there was no intimation from Talcher on these oscillation and on probe from ERLDC, they intimated that their unit were having issues. This is not desirable in view of the system security as such forced oscillation can result in catastrophic widescale oscillation across Indian grid and further damage.
2. **Reason for the Oscillation in Units :** The reason as intimated by NTPC vide email dt.0-07-18 was the IP Control valve hunting due to malfunction however, the exact reason behind the malfunction is still not explained.
3. **PSS tuning of Generating Plants in Eastern region :** The PSS tuning in eastern region is long pending issue. It may kindly be seen that several such cases of LFO has originated in Eastern region in the recent past and in order to reduce the magnitude by damping of such oscillation, PSS tuning of generating units in eastern region is utmost required.

NTPC May kindly deliberate on the above two issues and action taken thereafter. All ISGS/IPP/SSGS/ State IPP may also kindly share the Status of PSS tuning their units to ERLDC/ERPC (Yes/No, Date of Tuning, Tuning response Plots).

PART B: ITEMS FOR DISCUSSION

Item No. B.1: Status of projects funded under PSDF schemes

In the PSDF review meeting, it was advised to RPCs to monitor the status of all the projects funded by PSDF. Therefore, constituents are requested to update the status of projects which are being funded by PSDF in the desired format.

A. Projects approved:

SN	Name of Constituent	Name of Project	Date of approval from PSDF	Target Date of Completion	PSDF grant approved (in Rs.)	Amount drawn till date (inRs.)	Latest status
1	WBSETCL	Renovation & up-gradation of protection system of 220 kV & 400 kV Substations in W. Bengal	31-12-14	April 2018	108.6 Cr	18.26 Cr.	100 % Supply is Completed 100 % Erection is completed Claim is submitted for releasing of 22.27 Cr., the same is yet to be received.
2		Renovation & modernisation of transmission system for relieving congestion in Intra-State Transmission System.	22-05-17	25 months from date of release of 1 st instalment	70.13	Nil	Order has been placed for 96.44 Cr. 1 st instalment is yet to be received.
3		Installation of switchable reactor at 400kV & shunt capacitors at 33kV	22-05-17	19 months from date of release of 1 st instalment	43.37	Nil	Order has been placed for 12.53 Cr. 1 st instalment is yet to be received.
4	WBPDC	Implementation of Islanding scheme at Bandel Thermal Power Station	10.04.17	March 2018	1.39 Cr		<i>The implementation at Power station would be completed by May 2018. Implementation part at Substation for load segregation would be done by WBSETCL. WBSETCL agreed to send their plan within 7 days.</i>
5		Upgradation of Protection and SAS			23.48		Approved by Ministry of Power. Fresh tendering is in progress.
6	OPTCL	Renovation & Up-gradation of protection and control systems of Sub-stations in the State of Odisha in order to rectify protection related deficiencies.	10.05.15	30.11.18	162.5 Cr.	37.79 Cr	Total contract awarded for Rs. 51.35 Cr
7		Implementation of OPGW based reliable communication at 132kV and above substations	15.11.2017		25.61 Cr.		Agreement signed on 03.01.2018
8	OHPC	Renovation and up-gradation of protection and control system of 4 nos.OHPC substations.		<i>U.Kolab-March 19 Balimela-Feb 2019 U.Indravati-Jan 19 Burla-Nov 2018, Chiplima Dec 2018</i>	22.35 Cr.		Tendering under progress.
9	BSPTCL	Renovation and up-gradation of 220/132/33 KV GSS Biharsharif, Bodhgaya, Fatuha, Khagaul, Dehri -on-sone& 132/33 kV GSS Kataiya	11/5/2015	31.07.2018	64.02 crore	56.04 crore	85% of work has been completed. Contract awarded for Rs.71.37 Cr till date.
10		Installation of capacitor bank at different 35 nos. of GSS under BSPTCL	5/9/2016	12 th March 2019	18.88 crore	Nil	Work awarded for all GSS.

11		Renovation & up-gradation of protection and control system of 12 nos. 132/33 KV GSS under BSPTCL.	02.01.17	31 st March 2018	49.22 Cr.		75% work completed for seven no. GSS as part of R & M work. Revised DPR is to be submitted for rest 5 no. GSS.
12	JUSNL	Renovation and up-gradation of protection system	September 2017	2 years	138.13 crores		LOA issued to PRDC on 22 nd March 2018 for monitoring the project. Tendering is in progress.
13	DVC	Renovation and upgradation of control & protection system and replacement of Substation Equipment of 220/132/33 kV Ramgarh Substation	02.01.17	01.06.2019	25.96 Cr	2.596 Crore on 01.06.2017	Work awarded for 28.07 Cr.
14		Renovation and upgradation of control & protection system including replacement of substation equipment at Parulia, Durgapur, Kalyaneshwari, Jamshedpur, Giridih, Barjora, Burnpur, Dhanbad and Burdwan Substation of DVC	27.11.17	24 Months from the date of release of fund.	140.5 Cr.	1 st installment of 14.05 Cr. received on 21.12.2017	Work awarded for 6.45 Cr.
15	POWERGRID	Installation of STATCOM in ER		June 2018	160.28 Cr	16.028 Cr	Work is in progress, expected to complete by June 2018. STATCOM at Rourkela has been commissioned.
16	ERPC	Creation & Maintenance of web based protection database and desktop based protection calculation tool for Eastern Regional Grid	17.03.16	Project is alive from 30 th October 2017	20 Cr.	4.94 Cr. + 9.88 Cr.	1) Protection Database Project has been declared 'Go live' w.e.f. 31.10.17. 2) Pending training on PDMS at Sikkim and 3 rd training on PSCT has been also completed at ERPC Kolkata.
17a	ERPC	Training for Power System Engineers					The proposal was approved by Appraisal Committee. The proposal was sent to CERC. CERC has sought some queries from the Appraisal Committee. The matter shall be taken up by the Appraisal Committee during its next meeting.
17b		Training on Power market trading at NORD POOL Academy for Power System Engineers of Eastern Regional Constituents					

B. Projects under process of approval:

SN	Name of Constituent	Name of Project	Date of Submission	Estimated cost (in Rs.)	Latest status
1	Sikkim	Renovation & Upgradation of Protection System of Energy and Power Department, Sikkim.	09-08-17	68.95 Cr	Scheme was examined by TSEG. Inputs sought from entity. Sikkim submitted the relevant information.
2		Drawing of optical ground wire (OPGW) cables on existing 132kV & 66kV transmission lines and integration of leftover substations with State Load Despatch Centre, Sikkim	09-08-17	25.36 Cr	Scheme was examined by TSEG. Inputs sought from entity. Sikkim submitted the relevant information.
3	JUSNL	Reliable Communication & Data Acquisition System upto 132kV Substations.	23-08-17	102.31 Cr	Scheme was examined by TSEG. Inputs sought from entity. Scheme has been revised as suggested by TSEG and it would be submitted within a week.
4	OPTCL	Installation of 125 MVAR Bus Reactor along with construction of associated bay each at 400kV Grid S/S of Mendhasal, Meramundali & New Duburi for VAR control & stabilisation of system voltage	28-08-17	31.94 Cr	Scheme was examined by TSEG. Inputs sought from entity. OPTCL submitted the relevant information.

C. Projects recently submitted:

SN	Name of Constituent	Name of Project	Date of Submission	Estimated cost (in Rs.)	Latest status
1	WBSETCL	Implementation of Integrated system for Scheduling, Accounting, Metering and Settlement of Transactions (SAMAST) system in West Bengal	22-12-17	25.96 Cr	
2	OPTCL	Implementation of Automatic Demand Management System (ADMS) in SLDC, Odisha	22-12-17	3.26 Cr	
3	OPTCL	Protection upgradation and installation of SAS for seven numbers of 220/132/33kV Grid substations (Balasore, Bidanasi, Budhipadar, Katapalli, Narendrapur, New-Bolangir&Paradeep).	20.02.2018	41.1 Cr.	

Respective constituents may update the status.

Item No. B.2: Automatic Under Frequency Load Shedding (AUFLS) -NPC

In 2nd NPC meeting held on 16th July 2013 it was decided to implement the following load shedding scheme:

AUFLS	Frequency (Hz)	Load relief in MW					
		NR	WR	SR	ER	NER	Total
Stage-I	49.2	2160	2060	2350	820	100	7490
Stage-II	49.0	2170	2070	2360	830	100	7530
Stage-III	48.8	2190	2080	2390	830	100	7590
Stage-IV	48.6	2200	2100	2400	840	100	7640
Total (MW)		8720	8310	9500	3320	400	30250

In 7th NPC held on 7th September 2017, it was agreed that there is need for review of the quantum of load shedding and introduction of additional slabs/stages of frequency.

NPC vide letter dated 30th May 2018 informed that considering the grid size and assuming Power Number of 7000, the following two options are proposed:

Option 1:

AUFLS scheme with 4 stages of frequency viz. 49.2, 49.0, 48.8 & 48.6 Hz

AUFLS	Frequency (Hz)	Load relief in MW					
		NR	WR	SR	ER	NER	Total
Stage-I	49.2	3920	3360	3170	1380	170	12000
Stage-II	49.0	3950	3380	3190	1380	170	12070
Stage-III	48.8	3970	3400	3210	1390	170	12140
Stage-IV	48.6	4000	3430	3230	1400	170	12230
Total (MW)		15840	13570	12800	5550	680	48440

Option 2:**AUFLS scheme with 4 stages of frequency viz. 49.4, 49.2, 49.0 & 48.8 Hz**

AUFLS	Frequency (Hz)	Load relief in MW					
		NR	WR	SR	ER	NER	Total
Stage-I	49.4	3900	3340	3150	1370	170	11930
Stage-II	49.2	3920	3360	3170	1380	170	12000
Stage-III	49.0	3950	3380	3190	1380	170	12070
Stage-IV	48.8	3970	3400	3210	1390	170	12140
Total (MW)		15740	13480	12720	5520	680	48140

NPC sought the views of RPCs on the review of quantum of load shedding and stages of frequency.

In 146th OCC, Constituents agreed to examine both the options and send their feedback/comments to ERPC secretariat within ten days.

Comments from DVC, WBSETCL and JUSNL have been received.

Members may discuss.**Item No. B.3: Reactive Energy Charge calculation i.r.o. Subhasgram(PGCL) S/S--WBSETCL**

WBSETCL has requested for exclusion of MVarh drawal from Subhasgram(PGCL) / MVarh injection to Subhasgram (PGCL) S/S by West Bengal for calculation of weekly Reactive charge account with the E.R. pool.

400/220 KV Subhasgram(PGCL) sub-stn. is embedded within STU network of West Bengal state control area. It is not connected to any CTU/ ISTS/ ISGS sub-stn. of Eastern Region. Rather this standalone PGCL S/S is connected only with West Bengal load buses of Jeerat, Subhasgram, Newtown, KLC Bantala and EMSS(CESC) and West Bengal generation buses of Sagardighi TPP and Haldia Energy Ltd. Whatever lagging reactive power is drawn from SubhasGram(PGCL) S/S by STU load buses at low voltage (<97%) is mostly supplied by state generators like SgTPP and HEL through PGCL Subhasgram buses. Subhasgram (PGCL) S/S has no reactive power supplying equipment like synchronous condenser, SVC etc., rather it consumes some reactive energy to supply magnetizing current of its 5 nos. 400/220kv ICTs.

Same logic may be applicable to leading MVar injection to SubhasGram(PG) S/S by STU S/S as lightly loaded CTU-STU tie lines generates capacitive MVar. As Subhasgram(PG) has no bus reactor, it has no contribution towards absorbing any reactive power to reduce system voltage in high voltage scenario. Generators of Haldia Energy limited and Sagardighi TPP are operated to absorb reactive power from SubhasGram(PG) during high voltage.

So charging any amount to West Bengal on account of MVarh drawal from Subhasgram(PG) S/S at low voltage (below 3%) or MVarh injection to Subhasgram(PG) S/S at high voltage (above 3%) seems not justified considering exchange of reactive power with Subhasgram(PGCL) is not exchange between West Bengal and regional grid.

WBSETCL may elaborate.**Members may discuss.**

Item No. B.4: Shutdown clearance of 400 kV IBEUL – Jharsuguda D/C to start construction of OPGC MGR Corridor under crossing locations

The issue of time limit extension for diversion works of 3 nos. towers of 400 kV IBEUL – Jharsuguda D/C at 4 nos. crossing locations to facilitate construction works of OPGC MGR Corridor had been revised several times since June, 2017 onwards. Finally, ERPC, on the advice of CEA allowed the extension time limit up to 31.05.2018.

While OPGC was ready to start the construction works of MGR line from June, 2018 IBEUL reported one extension tower collapsed at location no. 45 on 29.04.2018, which would require 2 months' time for its restoration. In order to take the stock of the present status of ongoing works of the respective organisations, ERPC convened a Special meeting on 01.06.2018, wherein M/s OPGC pleaded to start the construction works of MGR line by opening of the conductor of the spans at the crossing points. Since the restoration of IBEUL line (under S/D) was not going to take place within 2 months and OPGC is ready to start the works in all respect, OPGC requested shutdown clearance of the line vide letter dated 02/07/2018.

In view of the facts, ERPC informed concerned utilities to attend the 147th OCC Meeting scheduled to be held on 20.07.2018 to discuss and finalise the issue.

In the meanwhile an email addressed to OPGC with a copy to ERPC has been received from IBEUL wherein it has been intimated that *"IBEUL is under financial stress because of which the Company has been referred to NCLT under section 7 of Insolvency and Bankruptcy Code (IBC) by project lenders. The hearing for the same is scheduled for 16th July 2018 before NCLT, Hyderabad. Under these circumstances, the Company is unable to commit itself to make any financial commitments since all its dues to the creditors will be governed by the provisions of the IBC. Thus completion of balance works of the diversion of the 400 KV IBEUL-SNG DC Line at the four Railway Crossings of OPGC has been held up and IBEUL is in a fix and not in position to make any progress and make any commitment to any authority. However considering the urgency of work of OPGC for commissioning of their expansion project, I would request you to kindly convene a meeting in OPGC office at Bhubaneswar involving your site engineers and IBEUL to resolve the issues."*

Members from SLDC, OPTCL, IBEUL and OPGC may please deliberate and finalise.

Item No. B.5: Installation of PMU for observation of the dynamic performance of STATCOMs--ERLDC

Four STATCOMs (Rourkela, Jeypore, Kishenganj, New Ranchi) are being commissioned in the Eastern Region to improve the dynamic var compensation in the grid and for the improvement of the transient stability. STATCOM is a dynamic VAR compensation device and provides the fast reactive support to the grid during transient as well steady state operation. In order to analyze the dynamic performance of STATCOM (STATCOM+ MSR /MSC) during day-to-day operation, it is desired to install PMU on the Coupling Transformer of the STATCOM as a part of the URTDSM project.

37th ERPC decided the followings:

- i) *Power Grid shall first explore the possibilities by diverting the unutilized PMUs under URTDSM project and would complete the work on urgent basis.*
- ii) *If adequate no. of PMUs are not available under URTDSM project, balance PMUs will be implemented under project "Upgradation of SCADA / RTUs / SAS in the Central sector stations and strengthening of OPGW network".*

Powergrid may update.

Item No. B.6: Allocation of sufficient power from tie lines during Shrawani Mela—JUSNL

Shrawani Mela at Deoghar and Basukinath is going to start from 21.07.2018 to 22.08.2018. Pilgrims from all parts of the country will visit during this period.

In order to provide reliable power to Deoghar and Dumka, JUSNL is planning to draw power from following tie lines:

- 30-35 MW through 132kV Deoghar-Sultanganj of BSPTCL
- 55-60 MW through 132kV Jamtara-Maithon of DVC
- 30-35 MW through 132kV Kahalgaon(BSPTCL)-Lalmatia of BSPTCL

In addition to tie all incoming 220kV source to Dumka and Lalmatia should also remain available during the above period.

Members may discuss.

Item No. B.7: Requirement of 220/132 KV 160 MVA Transformer at 220/132 KV Dehri I Gaurichak S/s-BSPTCL

In the SSCM meeting held recently at ERPC, BSTPCL informed that one 160 MVA transformer is required at 220/132 KV Dehri / Gaurichak GSS of BSPTCL. BSPTCL has requested that, if any spare transformer of the above specifications is available in Eastern Region Pool, the same may be allotted to BSPTCL for above GSS on prevailing terms & conditions.

SSCM referred the issue to 147th OCC Meeting.

BSPTCL may explain.

Powergrid may respond.

Item No. B.8: Request for drawal of power through 132kV Dalkhola(WB)-Baisi(BSPHCL) in radial mode--BSPTCL

In the 6th SSCM meeting held at ERPC Kolkata, it was informed by BSTPCL that, because of severe floods in Kishanganj area, they needed approx 20 MW power from Dalkhola on urgent basis to meet local loads of Baisi.

In the above meeting, WBSETCL was advised to explore to charge 132kV Dalkhola(WB)-Baisi(BSPHCL) in radial mode at the earliest to provide power to Baisi.

WBSETCL agreed to look into.

It was decided to review the issue in 147th OCC Meeting scheduled to be held on 20th July 2018 at ERPC, Kolkata.

BSPTCL and WBSETCL may update.

Item No. B.9: FLEXIBILITY IN GENERATION & SCHEDULING OF THERMAL POWER STATIONS TO REDUCE EMISSIONS-MOP, GOI ORDER

MoP vide letter No. 23/70/2017-R&R dated 05.04.2018 published a detailed mechanism of allowing Flexibility in Generation and Scheduling of Thermal Power Stations to reduce

emissions. Subsequently, CEA vide its letter No. 7/X/VIP/GM/2018/923-27 dated 12.06.2018 requested all RPCs to make necessary changes in Energy Accounting to implement the above mentioned mechanism.

The concept of flexible utilization of coal as introduced by the Central Govt in year 2016, allows the use of coal within its basket in optimal manner. This avoids unnecessary coal transportation and reduces the power generation cost. In a similar manner, it has been decided by MoP that there should be some flexibility in Generation and Scheduling of Thermal Power Stations so that Discoms are able to meet their RPO without facing any additional financial burden.

Further, due to large scale integration of Grid connected renewable, which is generally infirm in nature, there is a need for balancing power to maintain security & stability of the Grid. Such balancing has to be done by Discoms and Generators both. This flexibility will provide optimum use of RE by Power Generators and help reduce emissions.

The issue was discussed in 38th TCC/ERPC Meeting wherein, MS, ERPC informed that a workshop would be arranged at ERPC, Kolkata.

Accordingly, a workshop is scheduled to be held at ERPC Kolkata on 27.07.2018.

TCC advised all the constituents to nominate concern officers for detailed deliberation. Based on the discussion in the workshop, ERPC Secretariat, if necessary, would write a letter to CEA highlighting the issues needed to be addressed before implementation of the said mechanism.

Members may note.

Item No. B.10: Providing relevant data by Power Utilities I Stations in National Power Portal.

CEA vide letter dated 26th June 2018 informed that National Power Portal (NPP) (URL: npp.gov.in), has been launched by Hon'ble Minister of Power on 14th November, 2017. NPP is modified and more user-friendly data portal than the existing Information Management System (IMS) in CEA. Reports prepared from NPP are of vital importance for Power Sector data analytics in order to frame policies, regulations, future road-map for Power Sector etc. at Central as well as at State level. Accordingly, all power utilities have been issued user ID and password, either organisation-wise or station-wise, based on their request, for providing their data on NPP.

NPP has replaced IMS since 1st June, 2018. A Circular (which is available in Circular Section of CEA Website, i.e. cea.nic.in) has been issued by CEA to all power utilities/stations on 14.06.2018 for providing their data online in NPP only.

In this regard, letters/emails have been issued to Utilities to provide their data online through NPP. A letter dated 20.06.2018 was also issued to all SLDC, requesting them to direct the power utilities I stations under their purview for providing data on NPP.

Any issue/problem faced by utilities may kindly be communicated to itcea@nic.in, npp.support@gov.in, ceopm-cea@gov.in and if required, IT Division, CEA may be contacted on 011-26732368 or 011-26732303

CEA requested to pursue the power utilities / stations under their purview for providing data on NPP. Further, a workshop/presentation may be arranged if required in each region in which IT Division, CEA will provide a brief demonstration regarding data entering process and report generation into NPP.

Members may note and comply.

Item No. B.11: Implementation of Web based PSP report in ERLDC

ERLDC is currently preparing PSP report on daily basis which contains ISGS/IPP schedule & actual generated energy, inter-regional tie line energy exchange, energy consumption of states and energy generated by state generators (including DVC), voltages of important substations etc. The content in the report is being used by MOP, States and various other agencies for data compilation and preparation of other reports. This report is prepared during night shift hours as per the energy data submitted by all ISGS/IPPs, states, transmission licensees to ERLDC. Generally ERLDC received data from all users by 02:00 Hrs of night in different reporting formats(Ex-cell, Word, Mail, Over phone etc..) and prepared PSP report by 0400 hrs which is uploaded in ERLDC website and sent to MOP. However, due to submission of data in different formats by the users, it is very difficult to compile and validate such data during night hours before preparation of the PSP report.

To improve the data reporting system, a new web based PSP reporting portal has been developed, wherein generators, transmission licensees & states can log-in to the portal and submit their energy data. Beta version of this software is already installed at ERLDC and parallel testing is going on. The new PSP web based portal will be operationalized with effect from 00:00 hrs of 01st August, 2018.

In this regard all generators, transmission licensees & states are requested to nominate one nodal person to ERLDC in erldcso@posoco.in, who will co-ordinate with ERLDC nodal person and their nightshift executives to fill energy data. In the meantime it is requested to all generators, transmission licensees & states to instruct their night shift operators to enter the energy data using their user credential in ERLDC PSP web portal. Individual user id and password will be shared to respective nodal co-ordinators/ control room through mail.

Nodal Persons from ERLDC side:

1. Shri TusharRanjanMohapatra - (9433041873)
2. Shri Chandan Mallick – (9007059660)

Members may note.

Item No. B.12: TWO DAYS' WORKSHOP AT UPPER KOLAB / BALIMELA, ODISHA

In 37th ERPC Meeting, it was decided to organise a two days' workshop at Upper Kolab / Balimela, Odisha covering emerging issues in the Power Sector (1st day) and Black Start & Restoration Procedure (2nd day). OPGC, OHPC, GRIDCO, DISCOMS of Odisha, TSTPS, Powergrid Odisha etc. would be invited as participants for the above workshop.

Members may note.

Item No. B.13: Agenda point related to reporting of grid events by users, STU, CTU and SLDC to RLDC

As per IEGC section 5.9.4 (b) and 5.9.6 (a), all users, STU, CTU and SLDC are to send written report to RLDC for the events notified by IEGC section 5.9.5. Format of draft written report as per IEGC section 5.9.6 (c). All users, STU, CTU and SLDC are requested to send flash report in given format to erldcprotection@posoco.in/ erldccr@posoco.in/ erpcprotection@gmail.com followed by events mentioned in IEGC section 5.9.5.

Members may comply.

Item No. B.14: Agenda point related to load forecasting by SLDC

For better grid management and shutdown planning, RLDCs need to do short term load forecasting. Accuracy and effectiveness of load forecasting depend on input data. As per current practice, day ahead load forecasting is being done at ERLDC by analysing trend previous days demand. However, for further tuning and better accuracy of load forecasting result, demand

estimation from SLDCs are to be done at their end and same need to be shared with ERLDC for estimation of Eastern Region demand.

Member may discuss and Beneficiaries/States/SLDCs may share their demand forecasting methods.

PART C: ITEMS FOR UPDATE

Item no. C.1: Status of UFRs healthiness installed in Eastern Region

UFR Healthiness Certification for the month of June, 2018 has been received from CESC, WBSETCL, DVC, BSPTCL and JUSNL.

OPTCL may submit.

Item no. C.2: Status of Islanding Schemes healthiness installed in Eastern Region

At present, the following islanding schemes are in service:

1. CESC as a whole Islanding Scheme, CESC
2. BkTPS Islanding Scheme, WBPDC
3. Tata Power Islanding Scheme, Haldia
4. Chandrapura TPS Islanding Scheme, DVC
5. Farakka Islanding Scheme, NTPC

In 108th OCC meeting, respective constituents agreed to certify that the islanding schemes under their control area are in service on monthly basis.

The healthiness certificate for Islanding Scheme for June, 2018 has been received from CTPS, DVC, NTPC, West Bengal, JUSNL and CESC.

WBPDC may submit.

Item no. C.3: Status of Implementation of islanding schemes in ER

1. Islanding scheme at Bandel TPS-WBPDC

In 145th OCC, WBPDC informed that the implementation at Power station would be completed by May 2018. Implementation part at Substation for load segregation would be done by WBSETCL.

In 38th TCC Meeting, WBPDC informed that the implementation at Power station has been completed.

WBSETCL informed that implementation part at Substation end for load segregation would be completed by 10th July 2018.

WBPDC and WBSETCL may update.

2. Islanding scheme at IbTPS- OPGC

The islanding scheme was discussed in 68th PCC Meeting held on 18-06-2018. PCC opined that the draft scheme submitted by Odisha was three years old and the draft scheme is needed to be reviewed with existing network configuration.

PCC decided to discuss the islanding scheme in next PCC Meeting and advised OPTCL to submit all the relevant details to ERPC and ERLDC.

Members may note.

3. Islanding scheme at KantiTPS - KBUNL

The islanding scheme was discussed in 68th PCC Meeting held on 18-06-2018.

After detailed deliberation, PCC in principle agreed with the following islanding scheme at Kanti TPS:

- Stage II units (2x195 MW) of Kanti TPS will be islanded with station load of 40 MW and radial load of 150 MW (approx.) of 220kV Kanti TPS-Gopalganj D/C line.
- Once the grid frequency falls to 48.2 Hz, the PLC at Kanti TPS would initiate the islanding process after 500 ms time delay.

Members may note.

Item no. C.4: Healthiness of SPS existing in Eastern Region

The Status of healthiness certificate for June, 2018 is given below:

Sl. No.	Name of the SPS	Healthiness certificate received from	Healthiness certificate not received from
1.	<i>Talcher HVDC</i>	<i>GMR, & JITPL</i>	<i>NTPC, Powergrid</i>
2.	<i>Rangpo</i>	<i>Nil</i>	<i>Chuzachen & Powergrid, Dikchu, Teesta-III, Dansenergy</i>
3.	SPS of 132 kV Muzaffarpur-Dhalkebar D/C	<i>Nil</i>	<i>Powergrid</i>
4.	SPS in CESC system	<i>CESEC</i>	<i>Nil</i>
5.	SPS for Power Export to Bangladesh	<i>Nil</i>	<i>Powergrid</i>
6.	SPS at Chuzachen	<i>Nil</i>	<i>Chuzachen</i>

In 145th OCC, ERLDC informed that generation relief provided by the generators was not sufficient during SPS Operation on HVDC Talcher-Kolar Pole 1 tripping on 16-05-2018 15:34 Hrs. ERLDC elaborated the event with detailed presentation.

OCC advised Powergrid to submit a report on frequent tripping of only pole 1.

OCC opined that a Committee was already formed to study the SPS issues related to HVDC Talcher-Kolar. OCC advised the Committee to analyze this event and place the report in OCC Meeting.

Members may update.

Item No. B.15: Low-Frequency Oscillation (LFO) observed At Durgapur and nearby nodes on 05th APRIL 2018 from 14:21 hrs to 14:28 hrs.

Low-frequency oscillation of 0.1 Hz was observed in Durgapur and nearby nodes on 05th April 2018 from 14:21 hrs to 14:28 hrs. The oscillation was prominent in the Eastern region near Durgapur only based on the synchrophasor data analysis. Plot of Durgapur bus voltage based on PMU data is shown in the figure below where oscillation can be clearly observed. No significant oscillation was recorded by any other PMU during the said period, indicating some nearby local phenomenon or generator hunting. On further analysis of Eastern region SCADA data, large variations in the MW and MVAR of Sagardighi Unit 4 was noticed during the same time period.

In 144th OCC, ERLDC informed that similar incident was occurred earlier on 22nd July 2017 at 22:47 Hrs, Low Frequency Oscillations of frequency 0.083 Hz were observed in Sagardighi Unit 4 and WBPDCCL has not submitted any report.

ERLDC added that oscillations in electrical parameters like voltage & frequency would impact nearby generators by increasing wear and tear. Therefore, ERLDC has requested for following actions:

- WBPDCCL should submit a report.
- All Generating Units must intimate the RLDC/SLDC immediately if any such hunting/vibration is observed in Units (Cause/Effect).
- All Generating Units must Submit the one second or finer resolution data of MW/MVAr for all units to RLDC/SLDC
- PSS Tuning of all Generating Units above 100 MW must tune their PSS in Compliance to CERC Regulation and CEA grid Standard.

WBPDCCL informed that oscillations were observed due to problem in Governor of Sagardighi unit#4. WBPDCCL added that the unit is under shutdown and they are investigating the root cause.

OCC advised WBPDCCL to submit a report for both the incidences occurred on 05 April'18 and 22nd July 2017 along with the action taken.

WBPDCCL vide letter dated 1st May 2018 informed that unwanted oscillations in Sagardighi unit-4 was observed due to suspected malfunctioning of the governing system of the machine, which in turn oscillated the EHC output. The issue has been brought to the notice of BHEL and WBPDCCL maintenance department for immediate rectification of the problem. WBPDCCL also informed that during the ongoing shutdown period of U#4 control valve's pilot cleaning, calibration and thorough operation checking w.r.t EHC output will be done to identify and resolve the issue.

In 146th OCC, WBPDCCL informed that BHEL engineers had visited the site and attributed turbine vibration as the reason for low frequency oscillation. The necessary work for corrective measures is in progress. They will submit the detailed report after completion of the work.

WBPDCCL may update.

Item no. C.5: Restoration of 132 kV Sonenagar (BSPTCL) – Rihand(UPPCL) inter regional link

In 146th OCC, BSPTCL informed that the shutdown was taken from 15th June, 2018 to 27th June, 2018 and the line would be restored by end of June 2018.

OCC advised BSPTCL to review the protection settings as per the new configuration in coordination with Rihand end.

BSPTCL may update.

Item no. C.6: Implementation of Automatic Demand Management Scheme (ADMS)-ERLDC

The latest status along with proposed logic as follows:

SI No	State/Utility	Logic for ADMS operation	Implementation status/target	Proposed logic (if different from under implementation logic)
1	West Bengal	F <49.7 AND deviation > 12 % or 150 MW	Implemented on 25.11.16	F <49.9 AND deviation > 12 % or 150 MW

2	DVC	F <49.7 AND deviation > 12 % or 150 MW	Implemented on 17.06.2016	
3	Bihar	F <49.7 AND deviation > 12 % or 150 MW	3 months Feeders identified. Implemented by June 2018	F <49.9 AND deviation > 12 % or 150 MW
4	Jharkhand	1. System Frequency < 49.9 Hz AND deviation > 12 % or 25 MW 2. System Frequency < 49.9 Hz AND deviation > 12 % or 50 MW 3. System Frequency < 49.9 Hz AND deviation > 12 % or 75 MW	9 Months Tendering for RTU installation is in progress. Implemented by May 2018	Condition 1: Block I feeders will be selected for load shedding Condition 2: Block I & II feeders will be selected for load shedding Condition 3: Block I, II & III feeders will be selected for load shedding
5	Odisha	1. System Frequency < 49.9 Hz 2. Odisha over-drawl > 150 MW 3. DISCOM over-drawl > (40 MW)	10 Months Sent for PSDF approval.	Logic 2 and 3 is AND or OR, in case it is AND then ADMS may not operated when discom are in schedule but GRIDCO is overdrawing due to less generation at state embedded generators
6.	Sikkim			Sikkim informed that they have submitted a proposal to PSDF Committee for installation of OPGW cables which is under approval stage. Sikkim added that ADMS scheme would be implemented after installation of OPGW.

In 142nd OCC, it was opined that uniform logic should be implemented for all the states. OCC decided to review the logic of ADMS after implementation of the scheme by all the states.

In 38th TCC, Bihar informed that they are interacting with CHEMTROL but CHEMTROL is not responding. After detailed deliberation, ERLDC and PGCIL agreed to extend the necessary support to Bihar for implementation of the same.

DVC and West Bengal not yet received any report on operation of ADMS.

Members may update.

Item no. C.7: Unreliable operation at Motihari (DMTCL) SS

400/132kV Motihari S/Stn is of critical importance as the two high capacity inter-regional lines (400kV Barh-Gorakhpur Qd. Moose D/C) link E. Region with N. Region at this S/Stn. The Barh-Motihari D/C Qd. Moose line is essential for reliable power evacuation from Barh STPS of 2X660MW capacity. Motihari S/Stn is also responsible for meeting about 200MW load, considering Bihar and Nepal together.

As on date main CB of 125MVAR bus reactor-1, line isolator of 400kV Gorakhpur-2 line along with main and tie CBs of this line are out of service due to problem in gas duct. 400 kV Motihari – Gorakhpur – II was out of service due to unavailability of both bays at Motihari S/S.

In 144th OCC, it was decided to pursue the issue with DMTCL and decided to discuss the issue in 66th PCC Meeting scheduled to be held on 25th April 2018.

In 145th OCC, DMTCL informed that 400kV Motihar-Gorakhpur D/C line is under outage due to non-availability of GIS spares.

DMTCL added that the line would be restored within a month.

OCC advised DMTCL to expedite the work to restore the line at the earliest.

In 38th TCC, DMTCL informed that three bays, which are under outage, would be in service by 20th July 2018.

DMTCL may update.

Item no. C.8: Restoration of 400kV MPL-Maithon D/c lines

At around 5:21 hrs on 10th May 2018, both 400kV MPL-Maithon line-1 and 2 tripped on line to earth and phase to phase fault. Later upon physical inspection from MPL end, it was found that 3 towers namely 63, 64 and 65 have collapsed at 2 kms from MPL periphery. Being a double circuit tower both Maithon-1 and 2 are not available henceforth.

MPL requested to take urgent action for restoration of MPL-Ranchi line-1 on high priority and confirm the tentative time of line restoration.

In 145th OCC, Powergrid informed that restoration of 400kV MPL-MRBL line-1 and 2 using ERS towers is not possible as the damaged tower was at river crossing and the line would be restored only by 15th July 2018.

MPL vide mail dated 12th July 2018 informed that 400kV MPL-Maithon Ckt-1 & Ckt-2 successfully charged on 11th July @ 02:45 hrs.

Members may note.

Item no. C.9: Flexible jumpering arrangement for bypassing substations, prone to inundation during monsoon, for ensuring continuity of important corridors and power evacuation from power stations—ERLDC

In 136th OCC, ERLDC explained that the flexible jumpering arrangement may be done for 400 kV Binaguri-Kisheenganj-N.Purnea D/C and 400kV Binaguri-Alipurduar-Bongaigaon D/C lines for bypassing the LILO points i.e. 400kV Kishanganj(PG) and Alipurduar(PG) S/s so that the same lines may be directly connected during the emergencies like flood situations at LILO points. The possibility may be explored as these elements are very important in terms of hydro power evacuation and long outages of these elements may endanger the grid security. The other such elements (LILOed at Dalkhola, Motihari (DMTCL) etc) may also be explored which are under threat during flood and other emergencies.

In 146th OCC, Powergrid informed that the jumpering arrangement was completed at 400 kV Kishanganj S/s. Powergrid added that they need shutdown for jumpering arrangement at Alipurduar.

PGCIL may update. DMTCL may update the actions taken for Motihari S/S.

Item no. C.10: Repair/Rectification of tower at location 79 of 132kV Rangpo-Melli D/c line and Chuzachen(Rangpo)-Gangtok transmission lines - Powergrid

Powergrid informed that their patrolling team has observed bent in part of tower no. 79 of 132kV Rangpo-Melli D/c line and Chuzachen(Rangpo)-Gangtok transmission lines which may further degrade the condition of tower.

In 141st OCC, Sikkim informed that rectification of the tower has been taken up with Gati. The work would be completed by 2nd week of February 2018.

In 37th TCC, it was decided that Sikkim would give a comprehensive proposal to PGCIL within one week regarding handing over of the relevant segments of the line to PGCIL. Thereafter, PGCIL and Sikkim would sit together and sort out the issues involved therein.

In 145th OCC, Sikkim informed that the proposal had been sent to State Govt. for approval.

In 38th TCC, Sikkim informed that State Govt. for approval is pending.

Powergrid and Sikkim may update.

Item no. C.11: Status of Installation of STATCOM in Eastern Region

In the 15th meeting of SCM it was agreed to install STATCOM in combination with mechanically switched Reactors (MSR) and Capacitors (MSC) and co-ordinated control mechanism of MSCs and MSRs at Ranchi, Rourkela, Jeypore and Kishanganj substations in Eastern Region.

The matter was again discussed in the 28th ERPC/TCC meeting held on 12th -13th September, 2014 at Goa, wherein, it was decided that POWERGRID may go ahead with implementation of the STATCOM project in Eastern Region with debt – equity ratio of 70:30 funding. The debt part should be refunded through PSDF and Equity Component (30%) to be funded by POWERGRID to be recovered through regulated tariff mechanism. CTU should initiate the process of availing fund from PSDF.

Powergrid updated the latest status as follows:

SI No	Location /Sub-Station of POWERGRID in ER	STATCOM - Dynamic Shunt Controller (MVar)	Mechanically Switched Compensation Sl. (MVar)		Latest status
			Reactor (MSR)	Capacitor (MSC)	
1	Rourkela	±300	2x125		<i>In service from March 2018.</i>
2	Kishanganj	±200	2x125		<i>70% civil work completed. 30% switchyard equipment supplied. Expected to complete by December 2018</i>
3	Ranchi(New)	±300	2x125		<i>80% civil work completed. All switchyard equipment, reactors and 3 transformers supplied. Expected to complete by June 2018</i>
4	Jeypore	±200	2x125	2x125	<i>Testing completed. Trial operation by June 2018</i>

Powergrid may update.

Item no. C.12: 220 kV inter-connecting lines of OPTCL with 400/220 kV Bolangir (PG), Keonjhar&Pandiabil S/s

PGCIL has already commissioned the 2x315MVA 400/220kV Bolangir S/s by LILoing of 400kV Meramandali-Jeypore S/C line and 400/220 kV Keonjhar S/s with an objective of supplying power from ER grid to its adjoining areas in Odisha.

In lastOCC, OPTCL updated the completion schedule of inter-connecting system as follows:

Sl. No.	Name of the transmission line	Completion schedule
1.	2x315MVA 400/220kV Bolangir S/s	
a.	LILO of one circuit of Sadeipalli-Kesinga 220 kV D/C line at Bolangir S/S	<i>Only 7 towers left (Severe ROW problem). By December, 2018.</i>
2.	400/220kV Pandiabil Grid S/s:	
a.	Pratapsasan(OPTCL)-Pandiabil(PG) 220 kV D/C line	By Dec, 2018.
3.	400/220 kV Keonjhar S/S	
a.	Keonjhar (PG)-Keonjhar (OPTCL) 220 kV D/C line	By June, 2018.
b.	Keonjhar (PG)-Turumunga(OPTCL) 220kV D/C line	By 2019. The work is yet to be started.

OPTCL may update.

Item no. C.13: 220 kV inter-connecting lines of JUSNL with 2x315 MVA, 400/220 kV sub-stations at Chaibasa, Daltonganj&Dhanbad

In lastOCC, JUSNL updated the latest status as follows:

Sl. No.	Name of the transmission line	Completion schedule
1.	Daltonganj 400/220/132kV S/s:	
a.	Daltonganj(POWERGRID)–Latehar220kVD/c	By April, 2019.
b.	Daltonganj (POWERGRID) – Garhwa 220kV D/c	The line expected to be completed by May, 2018 but – Garhwa 220kV is expected to be completed by Dec 2018.
C	Daltonganj (POWERGRID) – Daltonganj (JUSNL) 132kV D/c	The line would be charged as per original configuration by July 2018. At present,Daltonganj (PG) has been connected to Daltonganj (JUSNL) at 132kV through existing 220 kV Latehar-Daltonganj line as stop gap arrangement till completion of the line.
D	Daltonganj (POWERGRID) – Chatarpur/Lesliganj 132kV D/c	Tendering is in progress. Expected to be completed by October 2019
2	Chaibasa400/220kVS/s	
A	Chaibasa(POWERGRID)–Noamundi220kVD/c	Not yet started
3	Dhanbad400/220kVS/s	
A	LILO of Govindpur–Jainamore/TTPS 220kVD/c at Dhanbad	ROW issues.Target date November 2018.

JUSNL may update.

Item no. C.14: 220 kV inter-connecting lines of WBSETCL with 400/220 kV, 2x315 MVA Alipurduar & 2x500 MVA Rajarhat sub-stations

In lastOCC, WBSETCL updated the latest status as follows:

Sl. No.	Name of the transmission line	Completion schedule
1.	2x315MVA, 400/220kV Alipurduar sub-station	
a.	Alipurduar (POWERGRID) – Alipurduar (WBSETCL) 220kV D/c (<i>Twin moose</i>)	<i>The line was commissioned on 6th June 2018.</i>
2.	2x500MVA, 400/220kV Rajarhat---	
a.	Rajarhat-N. Town-3 (WBSETCL) 220 kV D/C line	Matching, ROW problem
b.	Rajarhat-N. Town-2 (WBSETCL) 220 kV D/C line	June, 2018,ROW problem
c.	Rajarhat- Barasat (WBSETCL) 220 kV D/C line	June, 2018,ROW problem
3	Subashgram400/220kVS/s	
a	Subashgram–Baraipur220kVD/cline	Feb 2019, 50% of work has been completed.

WBSETCL may update.

Item no. C.15: Update on status of telemetry

CERC vide order dated 28.02.2016 on Petition No. 007/SN/2014 directed NLDC and respective RLDCs to update the status of telemetry every month at their respective websites and take up the issue of persistent non-availability of data from Generating Stations/substations at RPC meetings for appropriate action.

ERLDC may present. Members may update.

Item no. C.16: Failure of Real time telemetry

a) In geographically located area of North Bengal and Sikkim to ERLDC:

In 142nd OCC, M/s East North Interconnection Company Limited (ENICL) informed that OPGW is already available in the line but laying of approach cable inside the POWERGRID sub-stations & termination at both end to communication Mux is pending. ENICL added that the same is under discussion at their end for early implementation of the same.

In 143rd OCC, ENCIL updated that termination of OPGW would be completed by end of June 2018.

Powergrid informed that the link would be in service by end of July 2018 subjected to termination of OPGW link.

ENCIL &POWERGRID may update

Item no. C.17: Transfer capability determination by the states

In order to ensure, safe and secure operation of the grid, the states should carry out the power system study for operational planning and power transfer capability through their respective transmission links with the rest of the grid.

It was decided in the NPC meeting that to begin with, power system study for assessment of operational limits / power transfer capability for each state will be done by the concerned RLDC in association with concerned SLDC. Monthly TTC /ATC will be uploaded by the SLDCs at their respective websites and also communicated to concerned RLDC & NLDC subsequently.

BSPTCL has neither declared TTC nor has provided updated base case in last six months.

BSPTCL and Sikkim may update the status.

Item no. C.18: Replacement of GPRS communication with Optical Fiber for AMR

In ER, 80% meters are connected through Automated Meter Reading (AMR). At present the communication system used for data transfer from each location is GPRS. It has been observed that many locations are not communicating with AMR system due to poor/no GPRS signal. Many substations have their own optical fiber which is also used for the LAN network of respective stations. TCS has successfully connected 02 locations (Subhasgram-PG and Binaguri-PG) in ER-II with PGCIL intranet and these two locations are smoothly reporting to AMR system after connecting with PGCIL LAN. The proposed network will not only provide better communication but also reduce the cost of GSM.

In 37th CCM, POWERGRID informed that the replacement of GPRS communication of the Remaining 34 locations would be completed by August 2018.

POWERGRID may please update the progress.

Item no. C.19: Accounting of state drawl from Substation of PGCIL/ISTS Licensee in ER

As per Clause 7(1) (C) of CEA (Installation and Operation of Meters) Regulations, 2006 & its subsequent amendments, Main Meters for drawl computation through ICT should be installed on HV side of ICT and meters installed on LV side of ICT should be considered as Standby meters .

In view of the above it is proposed that State drawl from PGCIL/ISTS Licensee S/S may be computed by using the meter installed on HV side of ICTs in line with CEA regulation.

In 146th OCC, Powergrid informed that the SEM installation in ER-I stations has been completed and the same at ER-II stations would be completed by June 2018. Powergrid(Odisha) informed they will complete the SEM installation by July, 2018.

However locations in ER-I for ex, Purnea, Banka, Lakhisarai, and Ranchi are still pending.

A List of Time drifted Meters installed at ICTs at PGCIL S/station in ER was prepared by ERLDC from AMR system and vide letter dated 04.07.18, PGCIL was requested for replacement of the same.

Powergrid may update.

Item no. C.20: Meter related issues

1. Less recording by Bidhanagar WBSETCL end meter

Meter No NP-6485-A installed at Bidhanagar end of 220 Waria (DVC) Line-2 is recording almost negligible data compared to Waria end meter since 11:15 Hrs of 16.03.2018. Subsequently ERLDC vide mail dated 28.03.18 and 03.04.18 (with a copy to PGCIL) requested WBSETCL to check CT/PT connection and Value measured by the said meter. However the problem is still persisting and WBSETCL energy accounting is done with Waria DVC end meter.

In 144th OCC, WBSETCL was advised to resolve the issues at the earliest.

In 145th OCC, it was informed that the issue would be resolved by 23rd June 2018.

In 146th OCC, it was informed that the meter has been installed but the data could not be recorded due to cable problem.

WBSETCL/PGCIL may please further update.

2. Error between the Main and Check energy meter of 400kV Tala-Siliguri Feeder-I & IV (Siliguri end).

The percentage error between the Main and Check energy meter of 400kV Tala-Siliguri Feeder-I and IV at Siliguri end is found to be beyond permissible limit at 18.93% and 1.93 % respectively for the month of June 2018. As per PPA the percentage error should not exceed $\pm 0.6\%$. The check energy meter pertaining to DGPC/THP has been tested on 20th January, 2018 and the error was found to be within the permissible limit.

There was abnormal difference between energy send from Tala end and received at Siliguri end on 8th, 9th, 10th & 11th of June, 2018 due to loose connection in main energy meter of 400kV Tala-Siliguri Feeder I. The energy recorded by check energy meter couldn't be considered due to high error as mentioned above.

Therefore, PTC/POWERGRID is requested to test/replace the energy meter at the earliest.

DGPC may explain.

3. Reverse Polarity of Lakhisarai BSPTCL end meter

Meter No NP-8670-A installed at Lakhisarai (BSPTCL) is showing reverse polarity since 08.06.18. Reverse polarity was observed after Line was charged after taking shut down. Matter of Reverse Polarity was enquired from BSPTCL and it was informed that, Polarity was reversed by them to match import and export with their own meter. BSPTCL was requested to restore the Polarity as it was earlier. However the problem is still persisting.

BSPTCL may please update.

Item no. C.21: Mock Black start exercises in Eastern Region – ERLDC

Tentative Schedule for mock black start exercise for FY 2018-19 is given below:

Sl no	Name of Hydro Station	Schedule	Tentative Date	Schedule	Tentative Date
		Test-I		Test-II	
1	U.Kolab	Last week of May, 2018	Completed on 8 th June, 2018	Last Week of January 2019	
2	Maithon	1st week of June 2018	Completed on 6 th June, 2018	1st Week of February 2019	
3	Rengali	2nd week of June 2018	Planned in July, 2018.	Last week of November 2018	
4	U. Indarvati	3rd week of June 2018	Planned in July, 2018.	2nd week of February 2019	
5	Subarnarekha	1st week of October 2018		1st week of January 2019	
6	Balimela	3rd week of October 2018		1st week of March 2019	
7	Teesta-V	2nd week of Nov 2018	Done on 3 rd May 2018	Last week of February 2019	
8	Chuzachen	Last Week of May 2018	In May 2018	2 nd week of January 2019	
9	Burla	Last Week of June 2018	Completed on 7 th June, 2018	Last week of February 2019	
10	TLDP-III	1 st Week of June 2018	After Monsoon	2nd Week of January 2019	
11	TLDP-IV	Last Week of June 2018	After Monsoon	1 st Week of February 2019	
12	Teesta-III	Last week of Oct 2018		First Week of March 2019	
13	Jorthang	First Week of May 2018		First Week of Feb 2019	
14	Tasheding	2 nd Week of May 2018		2 nd Week of Feb 2019	
15	Dikchu	3 rd Week of May 2018		3 rd Week of Feb 2019	

Members may update.

Item no. C.22: Schedule for reactive capability tests

In last OCC, Members updated the status and informed the schedule as follows:

- AdhunikTPS(both units) – Unit #1 done on 27.10.2016 and submitted the testing report of unit #1. Unit #2 would be in service from April 2018.
- JITPL(both units) – done testing of unit#1 and agreed to send the report. After the emergent inspection of OEM(BHEL). Unit #2 testing would be done in July 2018

- Barh TPS – Vibration problems will be attended during overhauling. The testing would be done after overhauling in December 2019.
- Raghunathpur – Coal not available
- GMR (Three units) – *Reactive Capability test for Unit 1 & 2 was done on 18th May 2018.*

Members may update.

Item no. C.23: Installation of PMUs in Eastern Region under URTDSM project

LOA for installation of PMUs in Eastern Region under URTDSM project was awarded to M/s Alstom on 15th January 2014. The contract has to be completed in all respect within 24 months from the award. The status of implementation may be informed since PMU data is very much important to real time shift operator for analyzing the security of the grid.

POWERGRID informed that air-conditioning and lighting arrangement in PDC control room at SLDC-Howrah was not yet provided by WBSETCL for PDC installation. The requirement of air-conditioning and lighting in PDC control room at SLDC-Howrah was intimated to WBSETCL during survey on November-2014 but the same is not yet provided. The matter has also been discussed in 20th SCADA O&M meeting held on 15th December 2018 wherein WBSETCL intimated that the same would be done on priority.

OCC advised WBSETCL to provide the air-conditioning and lighting in PDC control room at SLDC-Howrah at the earliest.

Regarding Patratu, it was decided that NTPC and JUSNL would sit together and sort out the issue by March, 2018.

In 143rd OCC, WBSETCL informed that the air-conditioning and lighting in PDC control room at SLDC-Howrah by July 2018.

Regarding Patratu, NTPC and JUSNL informed that they would settle the issues in April, 2018.

POWERGRID may update the status.

Item no. C.24: Flexible Operation of thermal power stations- Identification of pilot projects--CEA

Central Electricity Authority vide letter dated 16th February 2018 informed that a special Task Force was constituted under IGEF Sub-Group-I for enhancing the flexible operation of existing coal-fired power plants. The committee has recommended for implementation of measures for 50%, 40% and 25% minimum load in thermal power stations. The measures for 50% minimum load operation requires no investment or minimal investment. (Report is available on CEA website under TRM division)

Subsequently, a meeting was held under the chairmanship of Member (Thermal) on 8th February 2018 where in it was decided that 55% minimum load operation would be implemented nationwide in first phase. Further, Six units, including two units of NTPC and one unit each from DVC, GSECL, APGENCO, MSPGCL, would be taken up for 55% minimum load operation on pilot basis as 55% minimum load operation in line with the CERC notification dated 6th April 2016 and 5th May 2017 (IEGC 4th Amendment).

In 142nd OCC, NTPC informed all the units of NTPC were capable of 55% minimum load operation. DVC informed that they were planning to implement at DSTPS.

In 37th TCC, DVC informed that they would demonstrate the capability of 55% minimum load operation for one unit of DSTPS by March 2018.

In 144th OCC, DVC informed that an exercise to test 55% minimum load operation had been conducted at DSTPS recently. The details of the test results, as and when received, would be shared with OCC members.

In 146th OCC, DVC informed that they could bring down their machine up to 60 % without oil support and with the available quality of coal.

In 38th TCC, DVC assured that the necessary demonstration to bring down their machine up to 55% would be done by July 2018.

DVC may update.

Item no. C.25: Issuance of TOC for DSTPS-RTPS OPGW link by DVC

In 19th SCADA O & M meeting held on 7th April 2017 at ERLDC, Kolkata, POWERGRID had informed that they were not able to complete the OPGW work in DSTPS – RTPS in DVC Sector under Microwave Replacement Package due to severe ROW issue. POWERGRID further informed that they had mobilized the team several times but work could not be completed due to heavy ROW / compensation issues related to TL construction resulting non-completion of 2 nos. OPGW drum (approx. 9 Km) out of total 69.182 Km. POWERGRID again informed that this issue was discussed in various forums but the solution could not be provided by DVC. DVC informed that they are not able to resolve the issue as this was an old ROW / compensation issue related to TL construction. OPGW work in this link could not be completed due to ROW/Compensation issues since September-2013.

In 36th ERPC meeting, matter was deliberated and DVC informed that they would try to resolve ROW issues by 31st October-2017. Otherwise they would provide the necessary certificate.

In 20th SCADA O&M meeting held on 15th December-2017, POWERGRID informed that DVC had not yet issued TOC for this link. DVC confirmed that they will issue TOC and request for a letter from POWERGRID. POWERGRID issued the request letter on 20.12.2017. However, ToC is yet to be issued by DVC.

In 37th TCC, DVC informed that the ROW issue would likely to be resolved after the Panchayat Election of West Bengal.

In 38th TCC, DVC assured that the issue would be resolved by July 2018. In case the issue is not resolved MS, ERPC will take up the matter with DVC for early resolution of the issue.

DVC may update.

PART D:: OPERATIONAL PLANNING

Item no. D.1: Anticipated power supply position during August'18

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of August'18 were prepared by ERPC Secretariat on the basis of Provisional LGBR for 2015-16 and feedback of constituents, keeping in view that the units are available for generation and expected load growth etc. is at **Annexure-D.1**.

Members may confirm.

Item no. D.2: Shutdown proposal of transmission lines and generating units for the month of August'18

Members may finalize the Shutdown proposals of transmission lines and generating stations for the month of August 18.

Shutdown proposals of generating stations:

System	Station	Unit	Size (MW)	Period		No. of Days	Reason
				From	To		
Jharkhand	TVNL, Tenughat	2	210	02.08.18	27.08.18	26	Overhauling
DVC	DSTPS	2	500	10.08.18	04.09.18	26	AOH (Blr, LPT Gen)
ODISHA	TTPS	6	110	01.08.18	20.08.18	20	Boiler Overhaul
WBPCL	Bakreswar TPS	3	210	28.08.18	26.09.18	30	Boiler Overhauling
	Bandel TPS	5	215	01.08.18	22.08.18	22	Boiler Overhauling
	Santalidih TPS	6	250	01.08.18	25.08.18	25	Capital Overhauling
NTPC	FSTPP	6	500	10.08.18	13.09.18	35	Boiler, TG, ESP
	KhSTPP	5	500	01.08.18	04.09.18	35	Boiler, TG
	TSTPS	6	500	20.08.18	13.09.18	25	Boiler+LPT+Boiler & Turbine RLA
BRBCL	Nabinagar TPP	1	250	05.08.18	30.08.18	26	Boiler OH incl. Turbine LP Rot., Gen. Rot. Checking etc.
IPP	MPL	2	525	15.08.18	15.09.18	32	AOH

ERLDC may place the list transmission line shutdown. Members may confirm.

1. Kahalgaon Unit-4 Overhauling.

Unit-4 shall be under shutdown from 6th Aug 2018 to 12th Aug 2018 for boiler/turbine related jobs.

Members may note.

2. Overhauling of Talcher STPS unit 2 and 6 –NTPC

- Unit 2 shutdown from 1st August 2018 to 15th Aug 2018 for 15 days.
- Unit 6 shutdown from 20th August 2018 to 31st Aug 2018 for 12 days.

Members may approve.

3. Emergency shutdown in 400kV KhSTPS Switchyard during July-Aug'18 for 400kV BUS splitting work

S.N.	Line Description	Date	Period	400 KV Bus details
1.	400 KV Kh-Lakhisarai#1 line	16/07/2018	09:30 hrs to 17:30 hrs	400 KV Bus#1
2.	400 KV Kh-Farakka#3 line	18/07/2018	09:30 hrs to 17:30 hrs	
3.	400 KV Kh-Maithon#2 line	19/07/2018	09:30 hrs to 17:30 hrs	
4.	400 KV Kh-Farakka#2 line	20/07/2018	09:30 hrs to 17:30 hrs	
5.	400 KV Kh-Banka#1 line	21/07/2018	09:30 hrs to 17:30 hrs	
6.	400 KV Kh-Barh#2 line	23/07/2018	09:30 hrs to 17:30 hrs	
7.	400KV/132KV ICT#2	24/07/2018	09:30 hrs to 17:30 hrs	400 KV Bus#2
8.	400KV/132KV ICT#1	25/07/2018	09:30 hrs to 17:30 hrs	
9.	400 KV Kh-Lakhisarai#2 line	26/07/2018	09:30 hrs to 17:30 hrs	
10.	400 KV Kh-Banka#2 line	27/07/2018	09:30 hrs to 17:30 hrs	
11.	400 KV Kh-Farakka#4 line	01/08/2018	09:30 hrs to 17:30 hrs	
12.	400 KV Kh-Maithon#1 line	02/08/2018	09:30 hrs to 17:30 hrs	
13.	400 KV Kh-Farakka#1 line	03/08/2018	09:30 hrs to 17:30 hrs	
14.	400 KV Kh-Barh#1 line	04/08/2018	09:30 hrs to 17:30 hrs	
15.	400 KV Bus#1 (On continuous basis)	08/08/2018 (09:30 hrs) to 10/08/2018 (17:30 hrs)		
16.	400 KV Bus#2 (On continuous basis)	16/08/2018 (09:30 hrs) to 18/08/2018 (17:30 hrs)		

Members may approve.

4. Shutdown of 220kV STPS-New Bishnupur D/C

In 67th PCC, DVC informed that repeated faults were occurred at same location due to touching of Earth wire of 220kV STPS-New Bishnupur line to 400kV Ranchi-Raghunathpur line conductors.

This was due to insufficient clearance between 400kV Ranchi-Raghunathpur and 220kV STPS-New Bishnupur lines.

DVC added that they are planning to resolve the clearance problem during next opportunity shutdown.

Members may approve.

5. Expeditious commissioning of 400kV FSTPS – Baharampur (Twin HTLS) D/C line-- ERLDC

In 38th TCC Meeting, WBSETCL agreed to allow the shutdown from 17.07.2018 (06:00 Hrs) to 26.07.2018 (17:00 Hrs).

Powergrid and WBSETCL may update.

Item no. D.3: Prolonged outage of Power System elements in Eastern Region

(i) Thermal Generating units:

S.N o	Station	Location	Owner	Unit No	Capaci ty	Reason(s)	Outage
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1	KAHALGAON	BIHAR	NTPC	3	210	ANNUAL OVERHAULING	6-Jul-18
2	BARAUNI	BIHAR	BSPHCL	6	105	R & M WORK	17-Mar-12
3	KOLAGHAT	WEST BENGAL	WBPDC	3	210	POLLUTION CONTROL PROBLEM	23-Feb-17
4	CTPS	JHARKHAND	DVC	3	130	TURBINE BLADE DAMAGE	30-Jul-17
5	MEJIA	WEST BENGAL	DVC	7	500	ANNUAL OVERHAULING	7-Jul-18
6	KAHALGAON	BIHAR	NTPC	6	500	TG VIBRATION	5-Jul-18
7	MTPS STG II	BIHAR	KBUNL	1	195	PROBLEM IN BOILER FEED PUMP	26-Jun-18
8	VEDANTA	ODISHA	GRIDCO	1	600	STATOR PROTECTION	19-May-18
9	VEDANTA	ODISHA	GRIDCO	2	600	PROBLEM IN BOILER	8-Feb-18
10	KBUNL STG-I	BIHAR	BSPHCL	2	110	BOILER TUBE LEAKAGE	11-Mar-18
11	TENUGHAT	JHARKHAND	JUVNL	1	210	hydrogen leakage due to seal il pressure drop	22-Jun-18
12	DPL	WEST BENGAL	WBPDC	7	210	VIBRATION OF APH ZONE	3-Jul-18
13	MEJIA	WEST BENGAL	DVC	6	250	STATOR EARTH FAULT	15-Mar-18
14	WARIA	WEST BENGAL	DVC	4	210	HIGH TEMP/MAINTANCE	9-Jul-18
15	SAGARDIGHI	WEST BENGAL	WBPDC	2	300	COAL SHORTAGE	4-Jul-18
16	RAGHUNATHPUR	WEST BENGAL	DVC	1	600	COAL SHORTAGE	1-Jun-18
17	KOLAGHAT	WEST BENGAL	WBPDC	1	210	COAL SHORTAGE	10-May-18
18	NABINAGAR	BIHAR	BRBCL	2	250	COAL TRANSPORTATION PROBLEM	11-Apr-18

(ii) Hydro Generating units:

Sr. No	Generating Station	UNIT NO	CAP(MW)	REASONS FOR OUTAGE	OUTAGE DATE
1	BURLA	5	37.5	R & M WORK	25.10.2016
2	BURLA	6	37.5	R & M WORK	16.10.2015
3	CHILIMA	3	24	R & M WORK	15.10.2015
4	BALIMELA	1	60	R & M WORK	05.08.2016
5	BALIMELA	2	60	R & M WORK	20.11.2017
6	BALIMELA	7	75	Governor & Guide vane problem	12.10.2017
7	U.KOLAB	2	80	Repair of MIV & Draft tube gate leakage	28.05.2017

(iii) Transmission elements

SL NO	Transmission Element / ICT	Agency	Outage Date	Reasons for Outage
1	220 KV BALIMELA - U' SILERU	OPTCL / APSEB	10.03.18	LINE ANTITHEFT CHARGED FROM UPPER SILERU ON 17-04-18
2	220 KV BUDHIPADAR - KORBA II	OPTCL / POWERGRID	07.05.18	TO CONTROL CRITICAL LOADING ON 220KV KORBA EAST & DSPM NETWORK IN CHHATTISGARH(kept open from Korba end)
3	400 KV MOTIHARI- GORAKHPUR - II	POWERGRID	07.04.18	SF6 GAS DUCT LEAKAGE IN MAIN AND TIE BAY ;
4	400 KV BARH-MOTIHARI-I	POWERGRID	15.06.18	Y-N FAULT/CLEARANCE REDUCED AS WATER LEVEL IN GANDAK RIVER HAS INCREASED.
5	400 KV BARH-MOTIHARI-II	POWERGRID	28.06.18	SWITCHED OFF DUE TO INCREASE IN LEVEL OF GANDAK RIVER
6	400 KV IBEUL JHARSAGUDAD/C	IBEUL	29.04.18	TOWER COLLAPSE AT LOC 44,45
7	400 KV BUS 3 AT JARSUGUDA	POWERGRID	09.07.18	SF6 LEAKAGE IN BUS DUCT
8	220 KV RENGALI(PG)-RENGALI(GRIDCO)-I	POWERGRID	07.07.18	CB TRIP COIL BURNT AT RENGALI PG END REPORTED WHILE CLOSING ON 11.07.08

(Reported as per Clause 5.2(e) of IEGC)

** Transmission licensees whose line were out due to tower collapse/ bend, may please update the detail restoration plan and as on date work progress status in OCC.

Also Monthly progress report to be submitted to ERLDC/ERPC till restoration of the element.

Members may update.

PART E::ITEMS FOR INFORMATION

Item No. E.1: Restricted Governor /Free Governor Mode Operation of generators in ER

CERC vide their letter dated 05-06-2017 desired to know the present status of RGMO/FGMO response of all eligible thermal and hydro units. Accordingly ERLDC vide letter no.ERLDC/SS/FGMO/2017 dated 07-06-17 requested all concerned power stations and SLDCs to provide updated status of FGMO/ RGMO of units under their control.

The latest status of the RGMO/FGMO of ER generators is enclosed in **Annexure-E1**.

Members may note.

Item No. E.2: Preparation of crisis management plan for Cyber Security in Power Sector in line with CERT-IN.

The activity of the preparation of Crisis Management Plan for countering the cyber attacks and its implementation including the Mock Drills, audits etc. is being monitored by CEA regularly in line with crisis management plant of Ministry of Power. Power Utilities (including generation, transmission & distribution utilities) of eastern region are to furnish regularly the updated status to on the same to Chief Engineer, Distribution Planning & Development Division, CEA.

In 142nd OCC, ERLDC informed that, in line with Enquiry Committee Recommendation, cyber security audit is being conducted on regular basis for SCADA system installed at ERLDC and SLDC as well but cyber security audit for telecom infrastructure installed in Eastern Region is not being carried out.

OCC advised all the constituents to conduct the cyber security audit on telecom infrastructure installed in Eastern Region. It is further advised that compliance / mitigation of the points observed during the audit should also be completed for improvement of the telecom infrastructure in ER.

In 37th TCC meeting, it was decided that a workshop would be conducted by CEA at ERPC for further benefit of ER Constituents.

In 144th OCC, ERLDC informed that they have already conducted a workshop with the help of NPTI, Durgapur on 21st March 2018.

A workshop on cyber security was conducted by CEA at ERPC, Kolkata on 09-05-2018.

As suggested by CEA, a format would be circulated among ER constituents for furnishing the information of the their respective systems for discussion in OCC Meeting. The format is enclosed at **Annexure-E2**.

OCC advised all the constituents to submit the information to ERPC as per Annexure-E2.

Members may note.

Item No. E.3: Certification through BIS as per IS 18001:2007 to all generating/ transmission units.

In 84th OCC meeting all constituents were requested to interact with BIS with intimation to ERPC and get certified as per CEA direction.

As per the information received from the constituents the following generators certified with IS 18001:

- All NTPC stations in Eastern Region
- Teesta, NHPC

- All OHPC generating units
- All CESC generating units
- All units of WBPCL
- DGPC units

Members may note.

Item No. E.4: Status of Disturbance Recorder, Stand alone Event Logger and Time Synchronization equipment.

The status of DR/EL and GPS as updated in previous OCCs is enclosed at **Annexure-E.4**.

Constituents are also requested to furnish their list of new DR/EL which are not included in the list.

TeestaUrja Limited vide letter dated 8th September 2017 informed that Disturbance Recorder, Stand alone Event Logger and Time Synchronization equipments are available at Teesta III HEP.

Members may note.

Item No. E.5: Status of Emergency Restoration System (ERS Towers) for Eastern Region constituents

CEA vide letter dated 21.07.2017 requested to send the status of state-wise availability of ERS towers and requirement of ERS towers.

In 136th OCC, MS, ERPC informed that CEA vide letter dated 21.07.2017 has sought the latest status on ERS. Therefore, OCC advised all constituents to send the updated status to ERPC secretariat vide mail (mserpc-power@nic.in).

Latest status is enclosed at **Annexure- E.5**.

In 138th OCC, WBSETCL informed that they are having total 10 ERS towers, 5 at Arambagh and 5 at Gokharno.

In 139th OCC, JUSNL informed that they are having eight 220/132kV ERS towers at following locations:

- Hatia – 3 nos
- Ranchi – 2 nos
- Dumka – 3 nos

Members may note.

Item No. E.6: Status of 1st Third Party Protection Audit:

The compliance status of 1st Third Party Protection Audit observations is as follows:

Name of Constituents	Total Observations	Complied	% of Compliance
Powergrid	54	46	85.19
NTPC	16	14	87.50
NHPC	1	1	100.00
DVC	40	26	65.00
WB	68	49	72.06
Odisha	59	42	71.19

JUSNL	34	25	73.53
BSPTCL	16	5	31.25
IPP (GMR, Sterlite and MPL)	5	5	100.00

* Pending observations of Powergridare related to PLCC problems at other end.

The substation wise status of compliance are available at ERPC website (Observations include PLCC rectification/activation which needs a comprehensive plan).

In 118th OCC, all the constituents were advised to comply the pending observations at the earliest. All the STUs informed that most of the observations are related to funding from PSDF. DPRs have been submitted to PSDF committee.

Members may comply.

Item No. E.7: DATA FOR GEOSPATIAL ENERGY PORTAL OF NEETI AAYOG--CEA

NITI Aayog is developing a user friendly GIS based Energy Map of India, which would provide true locations of all energy resources in India including power plants, coal and oil reserves, transmission lines etc.

CEA sought the information of name, voltage level, capacity, longitude and latitude of 33kV and 66 kV substations and lines.

The information may be shared with CEA vide email: cedpd-cea@gov.in.

Members may note and comply.

Item No. E.8: Commissioning of new transmission elements in Eastern Region

The details of new units/transmission elements commissioned in the month of June - 2018 based on information furnished by the constituents are depicted below:

Monthly commissioning List of Tansmission element and generators: June 2018					
SL NO	Element Name	Owner	Charging Date	Charging Time	Remarks
1	500 MW HVDC Bheeramara Block 2	Bangladesh	08-06-2018	15:22	Testing
2	100 MVAR VSC II at Jepore	PGCIL	09-06-2018	16:35	First time charge for testing
3	220kV Darbhanga(DMTCL)-Darbhanga(BSPTCL)-I	BSPTCL	12-06-2018	16:06	
4	220kV Darbhanga(DMTCL)-Darbhanga(BSPTCL)-II	BSPTCL	13-06-2018	17:07	Anti-theft charging upto Dead end tower of Darbhanga (BSPTCL)
5	125MVAR Bus Reactor II at Baripada	PGCIL	28-06-2018	18:45	404/398 kV
6	400kV Dikchu-Rangpo	PGCIL	30-06-2018	14:45	
7	132KV DALKHOLA-ISLAMPUR#2 (R.L-59KM)	WBSETCL	13.06.2018	18:47	
8	132KV DALKHOLA-ISLAMPUR#1 (R.L-59KM)	WBSETCL	13.06.2018	18:48	

9	132/33KV 50MVA TR#1 at Islampur	WBSETCL	13.06.2018	18:49 (HV) 18:53 (LV)	
10	132/33KV 50MVA TR#2 Islampur	WBSETCL	13.06.2018	18:48 (HV) 18:53 (LV)	
11	33KV MB, 100KVA ET#1,2, 33KV PT#1 &2, 315KVA STN TR#1 &2 Islampur	WBSETCL	13.06.2018	18:53	
12	132KV ISLAMPUR-TCF PS3 #1 & 2 (R.L : 40KM*2)	WBSETCL	13.06.2018	18:57	
13	132/33KV 20MVA TR#2 (MAKE: BHARAT BIJLEE, VECTOR GR. YNd1) at BIRPARA 132/33KV SUB-STN	WBSETCL	14.06.2018	17:36	
14	132/33KV 20MVA TR#1 (MAKE: BHEL, VECTOR GR. YNd1) at BIRPARA 132/33KV SUB-STN		28.06.2018	20:26	

Members may note.

Item No. E.9: Checklist for submission of updated data for Protection Database

The network data in Protection Database needs to be updated on regular basis on account of commissioning of new elements in the CTU as well as STU networks. Accordingly, a checklist has been prepared which is enclosed in **Annexure-E9**.

All the constituents are requested to submit the checklist on monthly bases in every OCC/PCC meetings.

In 139th OCC, all the constituents were advised to submit the data to ERPC vide mail (mserpc-power@nic.in) as per the checklist for last three months.

OCC advised all the constituents to submit the data to ERPC vide mail (mserpc-power@nic.in) as per the checklist for last three months.

Constituents may note and comply.

Item No. E.10: UFR operation during the month of June'18

System frequency touched a maximum of 50.24 Hz at 07:58Hrs of 12/06/18 and a minimum of 49.59Hz at 22:20Hrs of 19/06/18. Hence, no report of operation of UFR has been received from any of the constituents.

Members may note.

Item No. E.11: Grid incidences during the month of June, 2018

SI No	Date	Time	Affected System	Summary	GD/ GI
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1	25-05-2018	16:30	OPTCL	At 16:30 Hrs R ph LA blasted in 220 KV Jaynagar-Laxmipurckt I at Jaynagar which led to remote end tripping of some 220 KV ckts and backup overcurrent/reverse zone clearing of some ckts from Jaynagar end. As a result, 220 KV Jaynagar substation became dead and due to loss in evacuation paths, 160 MW in Upper Kolab(unit 1 and 3) and 268 MW in Balimela(Unit 3,4,5,6,7,8) tripped.	GD-I
2	26-05-2018	12:06	BSPTCL	At BODHGAYA GSS, Total power failed after tripping of both 220 KV Gaya(PG)-Bodhgaya ckt-1 and 2 at 12:06 Hrs from Gaya (PG) end.	GD-I
3	28-05-2018	21:41	BSPTCL	220 KV Gaya Bodhgaya d/c tripped from Gaya(PG) end only on 3-Ph Fault, zone III . Actually fault was in 220 KV Bodhgaya-Khizersarai-I line. During anti-theft charging of the said line 220 KV Gaya Bodhgaya d/c tripped from Gaya(PG) end.	GD-I
4	28-05-2018	19:04	WBSET CL & BSPTCL	At 19:04 hrs R-N fault took place in 400 KV Malda-Purnea-2 line and during A/R attempt Bus bar protection operated at Malda 400 KV and all the element tripped. Then Dalkhola B/C tripped in O/C and 220 kV Purnea-Purnea D/C and 220 kV Kishangunj-Dalkhola D/C tripped in DEF leading to wide spread blackout at Malda, Dalkhola and Purnea.	GD-I
5	30-05-2018	18:22	ISTS	220 kV Ranchi - Hatia D/C tripped in R-B fault at 18:22 hrs. At same time 220 kV Hatia - Patratu D/C tripped on overreaching the fault resulting interruption of power at 220/132 kV Hatia S/S and its surrounding areas	GD-I
6	31-05-2018	18:43	ISTS	Total power failure occurred at Daltongunj after tripping of 400 kV Sasaram - Daltongunj D/C at 18:43 hrs on R-N and B-N fault respectively.	GD-I

Members may note.

Item No. E.12: Non-compliance of directions issued by SLDC

Vide clause no 5.5.1.(c)(h) of IEGC, non-compliance of SLDC directions by SEB/Distribution licenses/bulk consumers to curtail overdrawal are to be reported to ERLDC for incorporating the same in weekly report to be prepared and published by ERLDC.

All SLDCs are to inform ERLDC the instances of non-compliance of SLDC directions by SEB/Distribution licenses/bulk consumers to curtail overdrawal, within two days after the day of operation.

No report from any constituent has yet received. Hence, ERLDC would be considering 'Nil' report for all constituents for June18.

Members may note.

Item No. E.13: Additional agenda

Annexure-D.1

**Anticipated Power Supply Position for the month of
Aug-18**

SL.NO	PARTICULARS	PEAK DEMAND MW	ENERGY MU
1	BIHAR		
	i) NET MAX DEMAND	4500	2592
	ii) NET POWER AVAILABILITY- Own Source (including bilateral)	346	184
	- Central Sector	3111	1896
	iii) SURPLUS(+)/DEFICIT(-)	-1043	-512
2	JHARKHAND		
	i) NET MAX DEMAND	1280	770
	ii) NET POWER AVAILABILITY- Own Source (including bilateral)	262	118
	- Central Sector	790	467
	iii) SURPLUS(+)/DEFICIT(-)	-228	-185
3	DVC		
	i) NET MAX DEMAND (OWN)	2780	1725
	ii) NET POWER AVAILABILITY- Own Source	4953	2719
	- Central Sector	313	208
	Long term Bi-lateral (Export)	1443	1074
	iii) SURPLUS(+)/DEFICIT(-)	1044	128
4	ORISSA		
	i) NET MAX DEMAND	4300	2604
	ii) NET POWER AVAILABILITY- Own Source	3282	1837
	- Central Sector	1198	723
	iii) SURPLUS(+)/DEFICIT(-)	179	-44
5	WEST BENGAL		
5.1	WBSEDCL		
	i) NET MAX DEMAND (OWN)	6220	3663
	ii) CESC's DRAWAL	0	0
	iii) TOTAL WBSEDCL's DEMAND	6220	3663
	iv) NET POWER AVAILABILITY- Own Source	3214	1939
	- Import from DPL	96	0
	- Central Sector	3016	1731
	v) SURPLUS(+)/DEFICIT(-)	106	7
	vi) EXPORT (TO B'DESH & SIKKIM)	10	7
5.2	DPL		
	i) NET MAX DEMAND	274	181
	ii) NET POWER AVAILABILITY	370	146
	iii) SURPLUS(+)/DEFICIT(-)	96	-35
5.3	CESC		
	i) NET MAX DEMAND	1880	1065
	ii) NET POWER AVAILABILITY - OWN SOURCE	750	503
	FROM HEL	540	348
	FROM CPL/PCBL	0	0
	Import Requirement	590	214
	iii) TOTAL AVAILABILITY	1880	1065
	iv) SURPLUS(+)/DEFICIT(-)	0	0
6	WEST BENGAL (WBSEDCL+DPL+CESC) (excluding DVC's supply to WBSEDCL's command area)		
	i) NET MAX DEMAND	8374	4909
	ii) NET POWER AVAILABILITY- Own Source	4334	2588
	- Central Sector+Others	4146	2079
	iii) SURPLUS(+)/DEFICIT(-)	106	-242
7	SIKKIM		
	i) NET MAX DEMAND	85	33
	ii) NET POWER AVAILABILITY- Own Source	2	0
	- Central Sector+Others	158	101
	iii) SURPLUS(+)/DEFICIT(-)	75	68
8	EASTERN REGION At 1.03 AS DIVERSITY FACTOR		
	i) NET MAX DEMAND	20698	12633
	Long term Bi-lateral by DVC	1443	1074
	EXPORT BY WBSEDCL	10	7
	ii) NET TOTAL POWER AVAILABILITY OF ER (INCLUDING C/S ALLOCATION)	22894	12919
	iii) PEAK SURPLUS(+)/DEFICIT(-) OF ER (ii)-(i)	743	-795

Details of stations/Units required to operate under RGMO/FGMO as per IEGC							Whether operating under RGMO	indicate in case of status is not available
Name of State	Type	Name of Utility	Sector (CS/SS/Private)	Name of Station	Name of Stage/ Unit	Installed capacity (MW)		
JHARKHAND	Thermal	TVNL	SS	Tenughat	1	210	No	Difficulties in implementing RGMO & exemption not
			SS		2	210	No	
	Hydro	JSEB	SS	Subarnrekha	1	65	Yes	
			SS		2	65	Yes	
WEST BENGAL	Thermal	WBPDC	SS	Bandel TPS	1	82.5	No	
			SS		2	82.5	No	
			SS		3	82.5	No	
			SS		4	82.5	No	
			SS	Santalidih	5	250	No	Unit#6 could not be implemented because of some technical problem
			SS		6	250	No	
			SS	Kolaghat	1	210	No	Nil
			SS		2	210	No	Nil
			SS		3	210	No	Nil
			SS		4	210	No	Nil
			SS		5	210	No	Nil
			SS		6	210	No	Nil
			SS	Bakreshwar	1	210	Yes	
			SS		2	210	Yes	
			SS		3	210	Yes	
			SS		4	210	Yes	
			SS		5	210	Yes	
			SS	Sagardighi	1	300	No	Without OEM support it is not possible to put in FGMO/RGMO. At present OEM support is not
			SS		2	300	No	
	Hydro		SS	PPSP	1	225	Yes	In 134th OCC WBPDC informed that the units are in RGMO/FGMO mode
			SS		2	225	Yes	
			SS		3	225	Yes	
			SS		4	225	Yes	
	Thermal	CESC	SS	Budge-Budge	1	250	Yes	
			SS		2	250	Yes	
			SS		3	250	Yes	
			SS	Haldia	1	300	Yes	
			SS		2	300	Yes	
			SS		7	300	Yes	
Orissa		OPGC	SS	IB TPS	1	210	No	Not adequate response in RGMO
			SS		2	210	No	
	Hydro	OHPC	SS	Burla	1	49.5	No	
			SS		2	49.5	No	
			SS		3	32	No	
			SS		4	32	No	
			SS		5	37.5	No	
			SS		6	37.5	No	
			SS		7	37.5	No	
			SS	Balimela	1	60	No	
			SS		2	60	No	
			SS		3	60	No	
			SS		4	60	No	
			SS		5	60	No	
			SS		6	60	No	
			SS		7	75	No	
			SS		8	75	No	
			SS	Rengali	1	50	No	
			SS		2	50	No	
			SS		3	50	No	
			SS		4	50	No	
			SS		5	50	No	
			SS	Upper Kolab	1	80	No	
			SS		2	80	No	
			SS		3	80	No	
			SS		4	80	No	
			SS	Indravati	1	150	No	
			SS		2	150	No	

			SS		3	150	No				
			SS		4	150	No				
			64								
Central Sector	Thermal	DVC	CS	Bokaro-A	1	500	Yes				
			CS	Bokaro-B	3	210	No	Not possible due to non availability of Electro hydraulic governing. The units will be decommissioned shortly.			
			CS	CTPS	3	130	No	Not possible due to non availability of Electro hydraulic governing. The units will be decommissioned shortly.			
			CS		7	250	Yes				
			CS		8	250	Yes				
			CS		DTPS	4	210	No	Not possible due to non availability of Electro hydraulic governing. The units will be decommissioned shortly.		
			CS	Mejia	1	210	No	Not possible due to non availability of Electro			
			CS		2	210	No	Action has been initiated to put in RGMO, but testing is not yet completed.			
			CS		3	210	No				
			CS		4	210	Yes				
			CS		5	250	Yes				
			CS		6	250	Yes				
			CS	Mejia - B	7	500	Yes				
			CS		8	500	Yes				
			CS	DSTPS	1	500	Yes				
			CS		2	500	Yes				
			CS	KODERMA	1	500	Yes				
			CS		2	500	Yes				
			CS	RTPS	1	600	Yes				
			CS		2	600	Yes				
			Hydro		CS	Panchet	1	40	No	RGMO mode of operation would not be possible for	
					CS		2	40	No		
			Thermal	NTPC	CS	Farakka STPP-I	1	200	Yes		
					CS		2	200	Yes		
					CS		3	200	Yes		
					CS	Farakka STPP-II	1	500	Yes		
					CS		2	500	Yes		
					CS	Farakka-U#6		500	Yes	Kept in RGMO mode from April, 2014	
	CS	Kahalgoan STPP			1	210	Yes				
	CS				2	210	Yes				
	CS				3	210	Yes				
	CS				4	210	Yes				
	CS				5	500	Yes				
	CS				6	500	Yes				
	CS				7	500	Yes				
	CS	Talcher STPP Stg-I			1	500	Yes				
	CS				2	500	Yes				
	CS	Barh			5	660	Yes				
	CS				6	660	Yes				
	Hydro				NHPC	CS	Teesta HEP	1	170	Yes	
						CS		2	170	Yes	
						CS		3	170	Yes	
				42							
IPP	Thermal	IPP	PS	Maithon RB TPP	1	525	Yes				
			PS		2	525	Yes				
			PS	Sterlite	1	600	Yes				
			PS		2	600	Yes				
			PS		3	600	Yes				
			PS		4	600	Yes				
			PS	Adhunik Power	1	270	Yes				
			PS		2	270	Yes				
				PS	JLHEP	1	48	No	(RoR project with 3 hours pondage)		
				PS		2	48	No			
				PS	Chujachen HEP	1	49.5	No	(RoR project with 3 hours pondage)		
				PS		2	49.5	No			
				1	200	No	could be put in RGMO				

	Hydro	IPP	PS	Teesta Urja	2	200	No	could be put in RGMO mode but because of transmission evacuation constraint RGMO/FGMO is disabled
			PS		3	200	No	
			PS		4	200	No	
			PS		5	200	No	
			PS		6	200	No	
			PS		1	48	No	
			PS	Dikchu	2	48	No	(RoR project with 3 hours pondage)
			PS					

Quarterly Preparedness Monitoring -AGENDA

(Status as on :
)

S.No.	State	Sector (G/T/D)	Utilities	Status of CISO Nomination	Critical Infra Identified	Crisis managem ent Plan Prepared	Status of CS mock drill	Status of Training/ Workshops organized/ participated by utility	Action taken on CERT- In/NCIIPC Advisories
1	Tamilnadu	T	TANGEDCO	Yes/No	Yes/No	Yes/No	Done on _____		

AVAILABILITY STATUS OF EVENT LOGGER, DISTURBANCE RECORDER & GPS

Sl. NO	Substation	Protection & Control System						Remarks
		Availability			Time Synchronization			
		EL	DR	GPS	Relay	DR	EL	
1	Subhasgram	Yes	Yes	Yes	Yes	Yes	Yes	
2	Maithon	Yes	Yes	Yes	Yes	Yes	Yes	
3	Durgapur	Yes	Yes	Yes	Yes	Yes	Yes	
4	Malda	Yes	Yes	Yes	Yes	Yes	Yes	
5	Dalkhola	Yes	Yes	Yes	Yes	Yes	Yes	
6	Siliguri	Yes	Yes	Yes	Yes	Yes	Yes	
7	Binaguri	Yes	Yes	Yes	Yes	Yes	Yes	
8	Birpara	Yes	Yes	Yes	Yes	Yes	Yes	
9	Gangtok	Yes	Yes	Yes	Yes	Yes	Yes	
10	Baripada	Yes	Yes	Yes	Yes	Yes	Yes	
11	Rengali	Yes	Yes	Yes	Yes	Yes	No	New EL would be implemented in BCU under NTAMC project by March'2015
12	Indravati (PGCIL)	Yes	Yes	Yes	Yes	Yes	No	EL is old one(model-PERM 200), provision for time synchronisation is not available. New EL would be implemented in BCU under NTAMC project by March'2015
13	Jeypore	Yes	Yes	Yes	Yes	Yes	Yes	EL is old and not working satisfactorily. New EL would be implemented in BCU under NTAMC project by March, 2015
14	Talcher	Yes	Yes	Yes	Yes	Yes	Yes	
15	Rourkela	Yes	Yes	Yes	Yes	Yes	Yes	
16	Bolangir	Yes	Yes	Yes	Yes	Yes	Yes	
17	Patna	Yes	Yes	Yes	Yes	Yes	Yes	
18	Ranchi	Yes	Yes	Yes	Yes	Yes	Yes	
19	Muzaffarpur	Yes	Yes	Yes	Yes	Yes	Yes	
20	Jamshedpur	Yes	Yes	Yes	Yes	Yes	Yes	
21	New Purnea	Yes	Yes	Yes	Yes	Yes	Yes	
22	Gaya	Yes	Yes	Yes	Yes	Yes	Yes	
23	Banka	Yes	Yes	Yes	Yes	Yes	Yes	
24	Biharsariif	Yes	Yes	Yes	Yes	Yes	Yes	
25	Barh	Yes	Yes	Yes	Yes	Yes	Yes	
26	Sagardighi	No	Yes	Yes	Yes	Yes	No	EL is under process of restoration with help from OEM, China
27	Kahalgaon	Yes	Yes	Yes	Yes	Yes	Yes	
28	Farakka	Yes	Yes	No	No	No	No	Time synchronization available for Farakka-Kahalgaon line-III & IV. The same will be implemented in rest of the lines by December, 2014.
29	Meramundali	Defunct	Yes	Yes	Yes	Yes	Yes	
30	Tisco	Yes	Yes	Yes	Yes	Yes	Yes	
31	Bidhannagar	No	Yes	Yes	No	No	No	Using DR & EL available in Numerical

								relays. GPS will be put in service by January, 2015.
32	Indravati (OHPC)	Yes	Faulty	No	No	No	No	Time synchronization will be done by Feb, 2015. ICT-I feeders using DR & EL available in Numerical relays. 400 kV ICT-II feeder is being maintained by PGCIL, Mukhiguda. Status may confirm from PGCIL
33	Kharagpur	No	Yes	Yes	No	No	No	Using DR & EL available in Numerical relays.
34	DSTPS	Yes	Yes	Yes	Yes	Yes	Yes	
35	Sterlite	Yes	Yes	Yes	Yes	Yes	Yes	
36	Mejia 'B'	Yes	Yes	Yes	Yes	Yes	Yes	
37	Mendhasal	Defunct	Yes	Yes	Yes	Yes	No	EL will be restored by March, 2015.
38	Arambagh	No	Yes	Yes	No	No	No	Using DR & EL available in Numerical relays
39	Jeerat	No	Yes	No	No	No	No	Using DR & EL available in Numerical relays. Procurement of new GPS is in progress.
40	Bakreswar	Yes	Yes	Yes	Yes	Yes	Yes	
41	GMR	Yes	Yes	Yes	Yes	Yes	Yes	
42	Maithon RB	Yes	Yes	Yes	Yes	Yes	Yes	
43	Raghunathpur	Yes	Yes	Yes	Yes	Yes	Yes	
44	Kolaghat	Yes	Yes	Yes	Yes	Yes	Yes	
45	Teesta V	Yes	Yes	Yes	Yes	Yes	Yes	
46	Koderma	Yes	Yes	Yes	Yes	Yes	Yes	
47	Sasaram	Yes	Yes	Yes	Yes	Yes	Yes	
48	Rangpo	Yes	Yes	Yes	Yes	Yes	Yes	
49	Adhunik	Yes	Yes	Yes	Yes	Yes	Yes	
50	JITPL	Yes	Yes	Yes	Yes	Yes	Yes	
51	765kV Angul	Yes	Yes	Yes	Yes	Yes	Yes	
52	Chuzachen	Yes	Yes	Yes	No	Yes	Yes	
53	New Ranchi 765kV	Yes	Yes	Yes	Yes	Yes	Yes	
54	Lakhisarai	Yes	Yes	Yes	Yes	Yes	Yes	
55	Chaibasa							
56	765kV Jharsuguda	Yes	Yes	Yes	Yes	Yes	Yes	All are in working condition. However a dedicated DR for 765KV Lines; make TESLA is not working. M/s Siemens has assured to commission the same by 31.01.15
57	Beharampur	Yes	Yes	Yes	Yes	Yes	Yes	
58	Keonjhar	Yes	Yes	Yes	Yes	Yes	Yes	

Eastern Regional Power Committee

The status of ERS towers in Eastern Region as updated in OCC meetings is given below:

1) ERS towers available in Powergrid S/s is as given below:

Sl. No.	Name of S/S	No. of ERS towers available
1	Durgapur, ER-II	1 Set (8 towers)
2	Rourkela, ER-II	3 towers incomplete shape
3	Jamshedpur, ER-I	15 towers (10 nos Tension tower and 5 nos suspension tower)

2) The present status of ERS towers in OPTCL system is as follows:

Sl. No.	Name of S/S	No. of ERS towers available
1	Mancheswar	2 nos, 400 kV ERS towers
2	Mancheswar, Chatrapur & Budhipadar	42 nos, 220 kV ERS towers

- 12 nos. of new 400 kV ERS towers have been recieved.
- Another, 16 nos of 400 kV towers accompanied with 6 sets of T&P are required which is under process

3) The present status of ERS towers in WBSETCL system is as follows:

Sl. No.	Name of S/S	No. of ERS towers available
1	Gokarna	2 sets
2	Arambag	2 sets

4) The present status of ERS towers in BSPTCL system is as follows:

Sl. No.	Type	Quantity	Remarks
1	Tension ERS Tower	12	New
2	Suspension ERS Tower	20	New
3	Old ERS Tower	10	1 no. is defective
Total		42	

- As informed in ERS meeting held on 10-11-2014 taken by Member (Power System), CEA; 2 sets (12 tension & 20 suspension) of ERS towers had been procured and currently available in BSPTCL system (as mentioned in above table with remarks "New").
- Same ERS tower is used in both 220 kV and 132 kV circuits.

- 5) In 25th ERPC meeting held on 21.09.2014, E R P C concurred to the proposal of procurement of four sets of ERS and it was also informed that, the proposed four sets of ERS will be kept at Sikkim, Siliguri, Ranchi and Gaya and will be used by all constituents of ER during emergencies.

Powergrid informed that four sets of ERS for Eastern Region will be procured.

- 5) DVC informed that they are in process of procuring two (2) sets of 400 kV ERS towers.

Checklist for Submission of new transmission elements for updation in Protection Database

NAME OF ORGANISATION:
FOR THE MONTH OF:

SUBSTATION DETAIL:

SI No	DETAILS OF ELEMENTS	DATA TYPE	Status of Submission (Y/N)	Remarks
1	TRANSMISSION LINE	LINE LENGTH, CONDUCTOR TYPE, VOLTAGE GRADE		
2	POWER TRANSFORMER	NAMEPLATE DETAILS		
3	GENERATOR	TECHNICAL PARAMETERS		
4	CURRENT TRANSFORMER	NAMEPLATE DETAILS		
5	VOLTAGE TRANSFORMER	NAMEPLATE DETAILS		
6	RELAY DATA	MAKE, MODEL and FEEDER NAME		
7	RELAY SETTINGS	NUMERICAL RELAYS: CSV or XML file extracted from Relay ELECTROMECHANICAL RELAYS: SNAPSHOT of RELAY		
8	REACTOR	NAMEPLATE DETAILS		
9	CAPACITOR	NAMEPLATE DETAILS		
9	UPDATED SLD			

SIGNATURE:
NAME OF REPRESENTATIVE:
DESIGNATION:
CONTACT:
E-MAIL ID: